Excerpted from

**Keeping learning on track:**

**integrating assessment with instruction**

Dylan Wiliam, Institute of Education, University of London

(Invited address to the 30th annual conference of the International Association for Educational Assessment (IAEA) held in June 2004, Philadelphia, PA)

* The primary purpose of educational research is the improvement of education. We cannot necessarily know which forms of research will pay dividends in the future so there is undoubtedly a place for ‘pure’ research in education. Nevertheless even the ‘purest’ form of research is not conducted in a vacuum, and while the implications of ‘pure’ research in education may not be immediately apparent, anything that helps us understand educational processes can help to illuminate or define the challenges that face us in improving education. In the language of Donald Stokes (1997) most educational research should be rooted firmly in ‘Pasteur’s quadrant’.
* The purpose of education is the improvement of student achievement. While we may argue about how this may be measured—and there is no doubt that some aspects of achievement are more easily measured than others—the purpose of education is to change learners; to enable them to do things that they could not previously do. In this sense, I have no problem with input-process-output models of education.
* The improvement of student achievement will be achieved primarily through changes in what happens in classrooms. Social changes such as improvements in diet, health and parenting will undoubtedly have their effects, but these will be slow compared to the changes that will be produced by changes in what happens in classrooms. Furthermore, while improvements in curricula, leadership and resources will also all help, they will help primarily by supporting more effective classroom practice. In this sense, **an effective school is simply a school full of effective classrooms.** [emphasis added]
* The role of the teacher is not to teach *per se*, but rather to create situations in which students learn—in other words to ‘engineer’ learning environments. In those educational systems where there is pressure on teachers to raise the achievement of students, teachers frequently feel pressured to ‘do more’ to help their students learn. All too often, the result is that teachers take more and more of the responsibility for the students’ learning, ‘spoon-feeding’ students the information that is needed to pass high-stakes assessments (Paris, Lawton, Turner & Roth, 1991). While it might appear obvious that this form of test preparation will help students pass tests, there is evidence that it is not the best way (Newmann, Bryk & Nagaoka, 2001, Nuthall & Alton-Lee, 1995), and that it may even be counter-productive (Boaler, 2002).

The logic of the foregoing argument is that the primary purpose of educational research is to assist in the creation of effective learning environments, and in this talk, I want to concentrate on the role that assessment can play in the design and operation of such effective learning environments. Specifically, I want to talk about the role that assessment plays in ‘keeping learning on track’ or more formally, in the regulation of learning.